APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,093	01/18/2002	Santosh C. Lolayekar	E003 - 1003US0	3414

80280   7590   10/10/2008
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EXAMINER
NGUYEN, HANH N

ART UNIT	PAPER NUMBER
2416	

MAIL DATE	DELIVERY MODE
10/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/051,093	LOLAYEKAR ET AL.
Office Action Summary	Examiner	Art Unit	
	Hanh Nguyen	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _Amendment filed on 7/3/08_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-63_ is/are pending in the application.

    4a) Of the above claim(s) _31-43 and 54-63_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-30, 44-53_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11, 13-20, 22-25, 29, 30, 44, 47-50 and 53 are rejected under 35 USC

103(a) as being unpatentable over Buckman et al. (US pat. 7,095,715 B2) in view of Hu

(US Pat. 6,757,291 B1).

Note, the specification defines in page 6, lines 10-15 the storage switch as a

multi-protocol SAN and process data at wire speed. Therefore, examiner uses the node

10 shown in figure 2 of Buckman et al. as a storage switch because it classifies and

processes received packets at line speed (see col.6, lines 55-62);

Further, in page 28, paragraph [0113], storage control packet is defined as

"connection request or management request".

 In claims 1,4, 5, 6, 7, 13, 16, 20, 24, 44, Buckman et al. discloses a method for

use by a storage switch (see fig.2, node 10) comprising:

receiving a plurality of packets by the switch (see fig.2; col.4, lines 52-55;

receiving packets 12 at classifying engine 14 of network node 10);

classifying packets as data packet (see fig.2, see col.4, line 62 to col.5, classifier

engine 14 classifies packets 12 to determine which flow the packets belongs to or what

type of packet); or classifying the received packets 12 as storage control packet (see

col.5, lines 25-35; controller 22 associates with classifier 14 to detect TCP SYNC

request packet (storage control packet) associated with a new TCP connections;

communicating the storage control packets to a first device (see col.5, lines 25-32, TCP

requests uses new TCP connection to communicate with controller 22) that controls the

storage switch using the storage control packets (see col.4, lines 50-55; controller 22 (

first device) controls the routing of the packets between the engines in the network node

10) and data packets to a second device (see col.4, lines 35-45; data packets 12 flow

data path to an accountant engine 20 (a second device) which evaluates data path

usage over which data packets 12 are transmitted).

 Buckman et al. does not disclose the storage control packets controls storage

management and routing of data packets between an initiator and a storage device. Hu

discloses the storage control packets controls storage management and routing of data

packets between an initiator and a storage device (see abstract, fig.1, col.4, lines 22-30

& 45-55 & 65 incoming traffic such as user request from a network 130 (an initiator) is

compared against the routing table in a controller unit 100. If there is a matching entry, it

will be routed to storage 110 for further processing). Therefore, it would have

been obvious to use the routing of user request packet between the network and

storage device into the network node of Buckman et al. to control the routing of control

packet so that packets are routed to a correct destinations.

Buckman et al. does not explicitly disclose said steps of classifying is performed without buffering of the packets. Note, as shown in specification, page 6, paraggrphs [0015];[0062] "processing packet without buffering the packet" is to process packet at wire speed with minimal time or no latency. Therefore, by line speed operation at the node 10 addressed above in (see col.6, lines 55-62); the node 10 is well-known in the art to classify packets at high speed; minimal delay (see Buckman ; col.2, lines 61 to col.3, line 10) without buffering the packets.

In claims 14, 22 and 30, the limitations of these claims have been addressed in claim 1.

*In claims 11,48, Buckman et al. discloses utilizing a local header for the packet, wherein the local header includes information indicating if the packet is a data packet or a non-data packet (see fig.2, col.4, lines 51-65; packets are classified based on header fields, packet contents or payload).

*In claim 8, Buckman et al. discloses the second device is external to the switch (col .7, lines 5-10; the classified packets 12 can be switched to be forwarded to shaper engine 18 which is a routing switch processor).

*In claim 9, 18, 47 and 53, Buckman et al. discloses data packets are for established connection (see col.5, lines 55-58; classify engine 14 monitors request and responses to allow new data flow), are for recognized protocol (see col.4, lines 55-62; classifying packets based on protocol type), and are data moving packets (see col.7, lines 10-20; voip packets).

*In claims 15, 23, 29 and 49, Buckman et al. discloses the steps of claim 1 are

performed by a storage processor in the switch (packet processor 16 of node 10; see

fig.2, col.7, lines 1-18).

*In claims 2, 3, 10, 17, 19, 25, 44, 50, Buckman et al. discloses clasify engine 14

detects TCP request packet associated with TCP connections (see col.5, lines 25-30;

data packets form a data request).

*Claims 26, 27, 45, 46, 51,52 are rejected under 35 USC 103(a) as being

unpatentable over Buckman et al. (US pat. 7,095,715 B2) in view of Wilford et al. (US

pat. 6,687,247 B1).

*In claims 26, 27, 45, 46, 51 and 52, Buckman does not disclose the second

device is on a line card. But Buckman et al. discloses the audio mixer (second device)

is located on a processor blade 32. Wilford et al. discloses the second device is on the

linecard (see fig.l, fabric interface 170 on linecard 110; col.6, lines 5-10); or external to

the linecard (fig.l, fabric 120 external to linecard 110). Therefore, it would have been

obvious to one skilled in the art to locate the audio mixer on the line card of Wilford in

order to connect to a plurality devices.

Claims 12, 21 and 28 are rejected under 35 USC 103(a) as being unpatenatble

over Buckman et al. (US Pat. 7,095,715 B2) in view of Grosner et al. (US Pat.

7,089,293 B2).

In claims 12, 21 and 28, Buckman et al. does not disclose processing data

packets in accordance with a virtualization function. Grosner et al. discloses, in fig.l, a

storage network 100. The storage networks performs virtualization function 508 for

request packets (see fig.5; col.6, lines 35-45). Therefore, it would have been obvious to

use the virtualization function in Buckman et al. to process packets. The motivation is to

provide physical resource, translate protocols.

Response to Arguments

Applicant's arguments with respect to claims 1-30, 44-53 have been considered

but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mahajan et al. (US Pat.6804236 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-THursday from 8:30 to 4:30PM. The examiner can also be reached on alternate .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on 571 272 3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Hanh Nguyen/

Primary Examiner, Art Unit 2416